

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2005 (06.05.2005)

PCT

(10) International Publication Number
WO 2005/040407 A1

(51) International Patent Classification⁷: **C12Q 1/00**,
1/26, G01N 33/487, 27/403

(21) International Application Number:
PCT/US2004/035286

(22) International Filing Date: 22 October 2004 (22.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/513,817 24 October 2003 (24.10.2003) US

(71) Applicant (for all designated States except US): **BAYER
HEALTHCARE LLC** [US/US]; 1884 Miles Avenue, P.O.
Box 40, Elkhart, Indiana 46515-0040 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WU, Huan-Ping**
[US/US]; 14374 Shoreline Drive, Granger, Indiana 46530
(US). **BEER, Greg, P.** [US/US]; 61684 Park Shore
Drive, Cassopolis, Michigan 49031 (US). **BLASCHKE,
Christina** [US/US]; 69590 Bellows Road, White Pigeon,
Michigan 49099 (US).

(74) Agent: **GATZ, John, C.**; Jenkins & Gilchrist, a Profes-
sional Corporation, 225 W. Washington Street, Suite 2600,
Chicago, Illinois 60606-3418 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

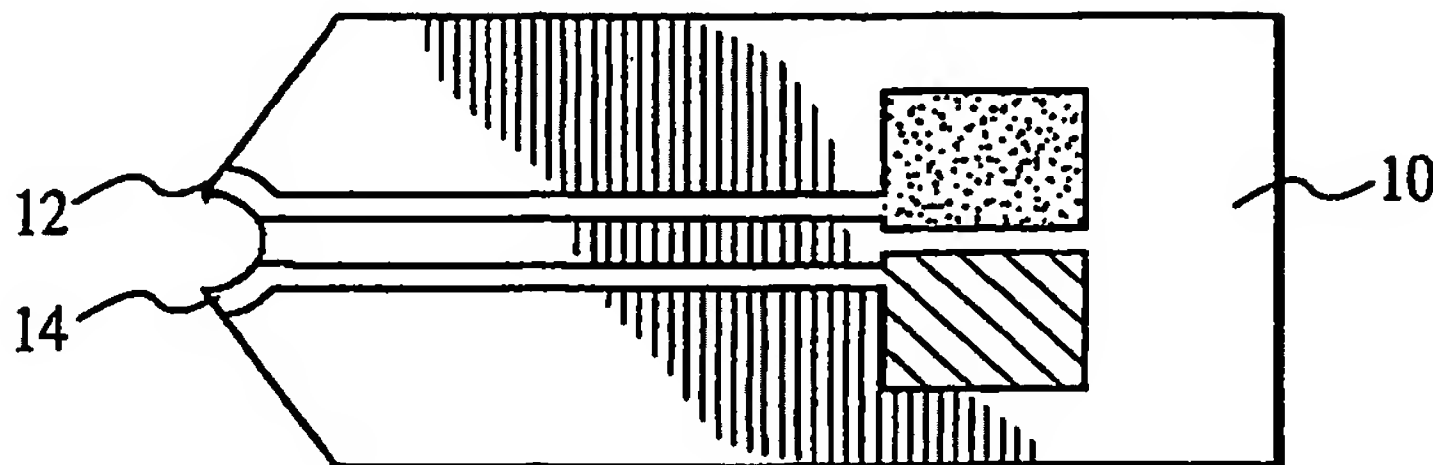
- as to the applicant's entitlement to claim the priority of the
earlier application (Rule 4.17(iii)) for all designations
- of inventorship (Rule 4.17(iv)) for US only

Published:

- with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **ENZYMATIC ELECTROCHEMICAL BIOSENSOR**



(57) Abstract: An electrochemical sensor strip has a base (10) and a first electrode (20) and a second electrode (30) on the base. An oxidoreductase enzyme and a mediator are on the first electrode, and a soluble redox species is on the second electrode. The soluble redox species may be an organotransition metal complex, a transition metal coordination complex, an electroactive organic molecule, or mixtures thereof.